IN THE CLAIMS

1 - 4. Canceled

5. Previously canceled

7 and 6. Canceled

8. (Currently Amended) A method for recovering material from a tire portion containing a steel component, the method comprising the steps of:

(a) contacting a tire portion with a molten reactant metal including aluminum under conditions facilitating the dissolution of steel into the molten reactant metal, the contacting step being performed for a reaction period sufficient to allow substantially all organic materials originally included in the tire portion to react with the molten reactant metal but leaving the steel component substantially intact;

(b) containing the tire portion on a tire carrier ~~when~~ during the time that the tire portion is contacted by the molten reactant metal; and

(c) removing the tire carrier and unreacted solids retained on the tire carrier from the molten reactant metal immediately after the reaction period, the unreacted solids ~~comprising solids~~ including the steel component remaining after the tire portion has contacted the molten reactant metal for the reaction period.

9. (Previously Added) The method of Claim 8 further comprising the step of maintaining the temperature of the molten reactant metal at a minimum of approximately 800 degrees Celsius during the reaction period.

10. (Previously Added) The method of Claim 8 wherein the steps of contacting the tire portion with the molten reactant metal and containing the tire portion on the tire carrier include:

(a) lowering the tire portion into the molten reactant metal on the tire carrier; and

(b) pressing the tire portion into the molten reactant metal with a tire contactor member extending across an area above the tire carrier.

11. (Previously Added) The method of Claim 10 wherein the step of removing unreacted solids from the molten reactant metal includes:

(a) lifting the tire contactor member and the tire carrier from the molten reactant metal and allowing the molten reactant metal to drain from around the unreacted solids, tire contactor member, and tire carrier; and

(b) cooling the tire carrier and unreacted solids located on the tire carrier.

12. (Currently Amended) A method for recovering materials from a tire portion including ~~stainless~~ steel, the method comprising the steps of:

(a) immersing the tire portion in a molten reactant metal including aluminum ~~or an aluminum alloy~~ for a reaction period sufficient to allow substantially all organic

materials originally included in the tire portion to react with the molten reactant metal, the molten reactant metal being held at a temperature at which ~~stainless~~ steel dissolves therein;

(b) containing the tire portion on a tire carrier when the tire portion is immersed in the molten reactant metal; and

(c) removing the tire carrier and unreacted solids retained on the tire carrier from the molten reactant metal upon completion of the reaction period, the unreacted solids including ~~solids~~ steel remaining after the tire portion has contacted the molten reactant metal for the reaction period.

13. (Previously Added) The method of Claim 12 further comprising the step of maintaining the temperature of the molten reactant metal at a minimum of approximately 800 degrees Celsius during the reaction period.

14. (Previously Added) The method of Claim 12 wherein the steps of immersing the tire portion in the molten reactant metal and containing the tire portion on the tire carrier include:

(a) lowering the tire portion into the molten reactant metal on the tire carrier; and

(b) pressing the tire portion into the molten reactant metal with a tire contactor member extending across an area above the tire carrier.

15. (Previously Added) The method of Claim 12 wherein the step of removing unreacted solids from the molten reactant metal includes:

(a) lifting the tire carrier from the molten reactant metal to drain the molten reactant metal from around the unreacted solids and tire carrier; and

(b) cooling the tire carrier and unreacted solids located on the tire carrier.

16. (New) A method of recovering materials from a tire portion having a steel component, the method comprising the steps of:

(a) placing the tire portion in contact with a molten reactant metal while the molten reactant metal is maintained at a minimum temperature of approximately 800 degrees Celsius so that organic components of the tire portion react with the molten reactant metal to produce liberated carbon and so that any part of the steel component that comes in contact with the molten reactant metal begins to dissolve into the molten reactant metal;

(b) collecting the liberated carbon together with gasses escaping from the molten reactant metal; and

(c) retrieving the remaining steel component of the tire portion from the molten reactant metal.

17. (New) The method of Claim 16 wherein the step of placing the tire portion in contact with the molten reactant metal includes loading the tire portion into a tire carrier,